

Application Serial No: 10/529,154
Responsive to the Office Action mailed on: January 6, 2009

REMARKS

This Amendment is in response to the Office Action mailed on January 6, 2009. Claim 1 is amended and is supported, for example, in the specification page 7, lines 16-22 and in Figure 5A. No new matter is added. Claims 1-3 and 5-10 are pending.

Claim Objections:

Claims 1-3 and 5-10 are objected to for informalities. In particular, the phrase "the discharged flow and the sucked flow directed from the cooling chamber to the cooler collide with each other in a portion in which the aperture is provided" recited in claim 1 is objected to as being unclear as the term "portion" is not concisely defined. Claim 1 is amended and no longer recites the term "portion" found unclear. Withdrawal of this objection is requested.

§103 Rejections:

Claims 1-3 and 5-10 are rejected as being unpatentable over Lazar (US Patent No. 2,747,381) in view of Howe (US Patent No. 4,420,697). This rejection is traversed.

Claim 1 is directed to a cooling device that requires, among other features, a cooler, a cooling chamber, a fan and an aperture. Claim 1 further requires that a rotation of the fan generates a discharged flow of cold air discharged from the cooler to the cooling chamber through the aperture and a sucked flow of cold air sucked from the cooling chamber to the cooler through the aperture. Also, the discharged flow and the sucked flow directed from the cooling chamber to the cooler collide with each other in the aperture.

The combination of Lazar and Howe does not teach or suggest these features. As suggested in the rejection, Lazar does not teach or suggest a configuration in which the discharged flow and the sucked flow directed from the cooling chamber to the cooler collide with each other in the aperture, as required by claim 1. However, the rejection asserts that Howe teaches that a rotation of the fan generates a discharged flow of cold air discharged from the cooler to the cooling chamber through the aperture and a sucked flow of cold air sucked from the cooling chamber to the cooler through the aperture, and

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that the discharged flow and the sucked flow directed from the cooling chamber to the cooler collide with each other in a portion in which the aperture is provided.

Howe is directed to a temperature controlled oven apparatus in which a chamber divider 25 has a circular aperture formed at a center and a frame shaped aperture in a rectangular shape that surrounds four sides of the chamber divider 25 (see column 5, lines 52-54 and Figure 3 of Howe). As shown in Figure 2 of Howe, the multiple apertures of Howe are designed to allow sucked flow directed to the fan 34 to pass through the circular aperture at the center and allow the discharged flow from the fan 34 to pass through the frame shaped aperture on the periphery of the chamber divider 25. Howe further teaches that the sucked flow and the discharged flow are mixed in the premixing area 36, located on the fan side of the chamber divider 25 (see column 5, lines 9-11). Thus, Howe teaches away from a configuration in which the discharged flow and the sucked flow directed from the cooling chamber to the cooler collide with each other in the aperture, as required by claim 1. For at least these reasons claim 1 is not suggested by the combination of Lazar and Howe and should be allowed. Claims 2, 3 and 5-10 depend from claim 1 and should be allowed for at least the same reasons.

Conclusion:


Applicants respectfully assert that claims 1-3 and 5-10 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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